

REMARKS

Claims 1-11 are pending in the present application. Claims 1 and 7 are in independent form. Claims 1-7 and 11 have been amended. In view of the above amendments and the following remarks, favorable reconsideration and allowance of the present application is respectfully requested.

Initially, Applicants appreciate the Examiner's acknowledgment that all certified copies pertaining to foreign priority claimed under 35 U.S.C. §119 have been received, the acceptance of the formal drawings filed on June 3, 2005 and the indication that the references submitted in the Information Disclosure Statement filed on June 3, 2005 have been considered.

I. CLAIM AMENDMENTS

By the present Amendment, Applicants submit that claims 1-7 and 11 have been amended. Support for the amendments to claims 1 and 7 may be found, at least, in paragraph [0033] – [0040] of the published Specification. Applicants submit that the amendments to claims 2-6 and 11 have been made either in response to the amendments to claims 1 or 7 and/or to provide proper antecedent basis for the claimed elements.

II. CITED ART GROUNDS

(A) *Claims 1-7 stand rejected under 35 U.S.C. §102(e) as being anticipated by Anderson et al. (hereinafter "Anderson"), US Patent No. 7,371,067. Applicants respectfully traverse the rejection.*

i. INDEPENDENT CLAIM 1

Amended independent claim 1 is directed to an interventional procedure simulation system wherein (*inter alia*) “said instrument being a tool expandable in a simulated vessel, whereby if said tool is expanded, a simulated geometry of said vessel changes resulting in a simulated fluid flow change.” Applicants submit that Anderson fails to explicitly teach, or otherwise suggest, all of the limitations recited in amended independent claim 1.

a. ANDERSON

The Action states that Anderson discloses “...said instrument being a tool expandable in a simulated vessel, whereby when said tool is expanded, a geometry of said vessel changes resulting in a fluid flow change. See Col. 2, lines 28-45.” Action, p. 2.

However, Anderson is directed to a system for designing customized, patent-specific medical devices wherein “...the design of a device is evaluated and modified, if necessary, based on the behavior of the device when it is deployed in a simulated system representing the anatomy of a patient in which the device will be used.” Anderson, col. 2, ll. 12-17. Thus, Anderson teaches that the design of the device is realized based on the anatomy of the patient. For example, if a geometric model of a cardiac artery were constricted, the design of device would be configured to account for the narrowing of the artery. Thus, the configuration of the device changes in response to the anatomy of the patient.

However, Anderson is not concerned with the outcome if the device does not change in response to constriction of the cardiac artery. Thus, Anderson fails to teach, or suggest, a system “whereby if said tool is expanded, a simulated geometry of said vessel changes resulting in a simulated fluid flow change” as recited in amended independent claim 1.

For at least this reason, Applicants submit that Anderson fails to explicitly teach, or otherwise suggest, an interventional procedure simulation system wherein “said instrument being a tool expandable in a simulated vessel, whereby if said tool is expanded, a simulated geometry of said vessel changes resulting in a simulated fluid flow change” as recited in amended independent claim 1.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection to independent claim 1, and claims 2-6 at least by virtue of their dependency on independent claim 1.

ii. INDEPENDENT CLAIM 7

Amended independent claim 7 is directed to a method of simulating flow of a body fluid in an interventional procedure simulation system including (*inter alia*) “changing a simulated geometry of said simulated vessel resulting in a simulated fluid flow change if said tool is expanded.” Thus, Applicants submit that independent claim 7 is patentable over Anderson for similar reasons as given above with respect to independent claim 1.

As such, Applicants respectfully request that the Examiner reconsider and withdraw the rejection to independent claim 7.

(B) Claims 8-11 stand rejected under 35 U.S.C §103(a) as being unpatentable over Anderson. Applicants respectfully traverse the rejection.

Applicants submit that Anderson fails to teach, or suggest, “changing a simulated geometry of said simulated vessel resulting in a simulated fluid flow change if said tool is expanded” as recited in amended independent claim 7.

Furthermore, the rejection states that “Anderson discloses all of the claimed subject matter with the exception of disclosing that the flow simulation is modeled as an electrical resistive network. However, the examiner takes official notice that the feature of modeling the blood flow of a blood vessel in terms of resistance and current is old and well known, and therefore it would have been an obvious modification with predictable results to one of ordinary skill in the art.” Action, p. 3-4.

However, Anderson teaches that “[t]he design and evaluation process is based on a quantitative analysis of **volume-rendered** images of a body cavity or lumen of a specific patient.” Anderson, col. 2, ll. 25-28. Thus, Anderson explicitly teaches that the simulation system generates volume-rendered images.

Furthermore, Applicants remind the Examiner of MPEP §2144.03, which states,

...it might not be unreasonable for the examiner in a first Office action to take official notice of facts by asserting that certain limitations in a dependent claim are old and well known expedients in the art without the support of documentary evidence provided the facts so noticed are of notorious character

and serve only to 'fill in the gaps' which might exist in the evidentiary showing made by the examiner to support a particular ground of rejection. *In re Zurko*, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001); *Ahlert*, 424 F.2d at 1092, 165 USPQ at 421.

Due to Anderson's failure to disclose that the flow simulation is modeled as an electrical resistive network (as acknowledged by the Examiner), as well as, Anderson's explicit teaching that the system generates volume-rendered images, Applicants submit that the features recited in claims 8-11 are not of notorious character nor do they serve only to 'fill in the gaps' which might exist in the evidentiary showing made by the Examiner to support the ground of rejection in view of Anderson.

Thus, Applicants respectfully request that the Examiner provide evidence that the feature of modeling the blood flow of a blood vessel in terms of resistance and current is old and well known.

For at least these reasons, Applicants submit that claims 8-11 are patentable over Anderson at least by virtue of their dependency on independent claim 7, as well as for their own merits.

Thus, Applicants respectfully request that the Examiner reconsider and withdraw the reject to claims 8-11.

CONCLUSION

Accordingly, in view of the above, reconsideration of the rejections and allowance of each of claims 1-11 in connection with the present application is earnestly solicited.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition for a three (3) month extension of time for filing a reply to the outstanding Office Action and submit the required \$555.00 extension fee herewith.

Should there be any matters that need to be resolved in the present application; the Examiner is respectfully requested to contact the undersigned at the telephone number below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By

John A. Castellano, Reg. No. 35,094

P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

CDW
JAC/CDW/dmc